UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Rey 1459

P O Box 1450 Alexandria, Virgima 22313-1450 www.usplo.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

30827 7590 07/01/2009 MCKENNA LONG & ALDRIDGE LLP 1900 K STREET. NW

WASHINGTON, DC 20006

EXAMINER
SHAND, ROBERTA A

ART UNIT PAPER NUMBER
2416

DATE MAILED: 07/01/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,161	09/08/2003	In Tae Hwang	8737.079.00	1315

TITLE OF INVENTION: RADIO PROTOCOL FOR MOBILE COMMUNICATION SYSTEM AND METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	10/01/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FIEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed oth	or transmitting the ig the Patent, advan- nerwise in Block 1,	ce orders and notificate by (a) specifying a new	ion of r	naintenance fees w pondence address;	ill be and/o	mailed to the current (b) indicating a sepa	correspondence address as trate "FEE ADDRESS" for
	ENCE ADDRESS (Note: Use Bi	ock 1 for any change of add	fress)	Note Feet pape have	e: A certificate of r (s) Transmittal. This ers. Each additional e its own certificate	nailing certil paper of ma	can only be used fo icate cannot be used f , such as an assignme ling or transmission.	r domestic mailings of the or any other accompanying nt or formal drawing, must
30827 MCKENNA L 1900 K STREET WASHINGTON					Cert	ificate	of Mailing or Trans	
								(Depositor's name)
				\vdash				(Signature)
				ᆫ				(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR			ATTORNEY DOCKET NO.		CONFIRMATION NO.
10/656,161	09/08/2003		In Tae Hwai	-			8737.079.00	1315
TITLE OF INVENTION	: RADIO PROTOCOL I	FOR MOBILE COM	MUNICATION SYSTI	EM AN	D METHOD			
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FE	E DUE	PREV. PAID ISSUE	FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300		\$0		\$1810	10/01/2009
EXAM	IINER	ART UNIT	CLASS-SUBCL	ASS	1			
SHAND, RO	OBERTA A	2416	370-469000)	,			
Change of corresponder CFR 1.363).	ence address or indicatio	n of "Fee Address" (atent front page, list			
	ondence address (or Cha	nge of Corresponder	(I) the names of or agents OR, a					
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47, Rev 03-02 or more recent) attached. Use of a Custome Number is required.			registered attor					
3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED	ON THE PATENT (pri	nt or typ	ne)			
		ified below, no assign eletion of this form is						ocument has been filed for
(A) NAME OF ASSI	GNEE		(B) RESIDENCE	: (CITY	and STATE OR C	OUNT	RY)	
Please check the appropr	iate assignee category or	categories (will not	be printed on the patent): 🗆	Individual 🚨 Co	rporati	on or other private gro	oup entity Government
4a. The following fee(s)	are submitted:				se first reapply an	y prev	lously paid issue fee	shown above)
☐ Issue Fee ☐ Publication Fee (No small entity discount permitted)				☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached.				
Advance Order -				The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form).				
5. Change in Entity Sta	tus (from status indicate	d above)	overpayment,	ю Беро	sit Account Numbe		(enclose a	n extra copy or this form).
	s SMALL ENTITY state		☐ b. Applicant is	no lon	ger claiming SMAL	LEN	ITTY status. See 37 Cl	R 1.27(g)(2).
NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be acc tes Patent and Trade	cepted from anyone other mark Office.	r than t	he applicant; a regis	tered	attorney or agent; or th	e assignee or other party in
Authorized Signature					Date			
Typed or printed name					Registration N	D		
This collection of inform an application. Confiden submitting the complete this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450.	FR 1.311. The infor U.S.C. 122 and 37 (USPTO, Time will rden, should be sent O NOT SEND FEES	mation is required to ob CFR 1.14. This collectic vary depending upon the to the Chief Informatio OR COMPLETED FOR	tain or r on is est he indiv n Office RMS TO	retain a benefit by the imated to take 12 no idual case. Any con- er, U.S. Patent and 7 D THIS ADDRESS.	ne pub ninute: nment Frader SEN	tic which is to file (and to complete, includin s on the amount of tin nark Office, U.S. Depo D TO: Commissioner	by the USPTO to process) g gathering, preparing, and ne you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.uspto.gov

DATE MAILED: 07/01/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,161 09/08/2003		In Tae Hwang	8737.079.00 1315	
30827 7.	590 07/01/2009		EXAM	IINER
MCKENNA LO	NG & ALDRIDGE I	LP	SHAND, R	OBERTA A
1900 K STREET,			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20006			2416	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1227 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1227 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/656,161 HWANG, IN TAE Notice of Allowability Examiner Art Unit Roberta A. Shand 2416 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to the Terminal Disclaimer June 5, 2009. The allowed claim(s) is/are 25 and 40-61 renumbered 1-23. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) 🔯 All b) ☐ Some* c) ☐ None of the: 1. A Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No.

International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has	THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements
noted below.	Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-	MONTH PERIOD IS NOT EXTENDABLE.

3.
☐ Copies of the certified copies of the priority documents have been received in this national stage application from the

. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

- CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

 (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - (a) ☐ including changes required by the Notice of Drattsperson's Patent Drawing Review (PTO-948) attached

 1) ☐ hereto or 2) ☐ to Paper No./Mail Date

 .
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s) 1. ☑ Notice of References Cited (PTO-892)

- 1. Motice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08),
 Paper No./Mail Date _____

 Exeminary Comment Researching Requirement for I
- Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. Notice of Informal Patent Application

- Interview Summary (PTO-413), Paper No./Mail Date
- 7. Examiner's Amendment/Comment
- Examiner's Statement of Reasons for Allowance

€.	Other	_

Application/Control Number: 10/656,161 Page 2

Art Unit: 2416

Allowable Subject Matter

- 1. The following is an examiner's statement of reasons for allowance: the admitted prior art does not teach or fairly suggest In a wireless communication system that employs a layered radio interface protocol, comprising: a radio resource control (RRC) layer; a medium access control (MAC) laver; and a radio link control (RLC) layer comprising at least three data transmission mode entities, the at least three data transmission mode entities including: a transparent mode RLC entity adapted to control the transmission of data units between the RRC laver and the MAC laver by segmenting and reassembling data units that have no headers: an unacknowledged mode RLC entity t adapted to control the transmission of data units between the RRC laver and the MAC laver by framing and deframing data units and detect and discard data units that contain an error; and an acknowledged mode RLC entity adapted to control the flow of data units between the RRC laver and the MAC laver by framing and deframing data units and by error correction, as recited in independent claims 25, 51 and 58.
- 2. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 10/656,161 Page 3

Art Unit: 2416

Conclusion

3. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Roberta A, Shand whose telephone number is (571)272-3161.

The examiner can normally be reached on M-F 9:00am-5:30pm.

4. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Roberta A. Shand /R. A. S./

Examiner, Art Unit 2416

/William Trost/

Supervisory Patent Examiner, Art Unit 2416